

CHAPTER 52-04-03 CHASSIS REQUIREMENTS

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52-04-03-01. Brakes. Every special motor vehicle shall be equipped with parking brakes operating on at least two wheels on the same axle which when applied shall be capable of producing a tire to road braking force of not less than twenty-five percent of the gross vehicle weight on a level, dry, concrete or asphalt surface free from loose material. The parking brakes shall be so designed that when once applied they shall remain applied with the required effectiveness despite exhaustion of any source of energy or leakage of any kind.

General Authority: NDCC 39-02-03

Law Implemented: NDCC 39-02-03

52-04-03-02. Bumpers. Every special motor vehicle shall be equipped with a bumper both on the front and rear of the vehicle with the exception of type I and type II special vehicles where the original or predominant body configuration, provided by a recognized manufacturer, did not include such bumper or bumpers in the design of the vehicle. Type I and type II special vehicles, not excepted as noted above, and all type III special vehicles shall be equipped with horizontal load-bearing bumpers or customized bumpers or grill bars of a sturdy construction which have at least an evenly distributed portion of their horizontal load-bearing width within fourteen inches and twenty-two inches [35.56 centimeters and 55.88 centimeters] above a level road surface and which extend no less than the width of their respective wheel tract distances, when these distances are measured to the width of standard size tires. The horizontal bumper or customized bumper or grill bar structure shall be at least four and one-half inches [11.43 centimeters] in vertical height and centered on the vehicle's centerline, and attached to the vehicle frame to effectively transfer impact when engaged.

General Authority: NDCC 39-02-03

Law Implemented: NDCC 39-02-03

52-04-03-03. Exhaust system.

1. Every special motor vehicle shall be equipped with an exhaust system that is free of leaks including the exhaust manifolds (including headers), the piping leading from the flange of the exhaust manifolds, the mufflers, and the tail piping.

2. Exhaust systems on property-carrying vehicles shall discharge the exhaust fumes to the rear of that part of the vehicle designed for, and normally used for, carrying the driver and passengers.
3. Exhaust systems on passenger vehicles shall discharge the exhaust fumes at a location to the rear of the vehicle body or direct the exhaust fumes outward from the side of the vehicle body at a location rearward of any operable side windows.
4. No part of the exhaust system shall pass through any area of the vehicle that is used as a passenger-carrying compartment.

General Authority: NDCC 39-02-03

Law Implemented: NDCC 39-02-03

52-04-03-04. Fenders. All wheels of every special motor vehicle shall be equipped with fenders designed to cover the entire tire tread width that comes in contact with the road surface. Coverage of the tire tread circumference shall be from at least fifteen degrees in front to at least seventy-five degrees to the rear of the vertical centerline at each wheel measured from the center of wheel rotation. At no time shall the tire come in contact with the body, fender, or chassis of the vehicle.

General Authority: NDCC 39-02-03

Law Implemented: NDCC 39-02-03

52-04-03-05. Fuel system.

1. Every special motor vehicle shall have all fuel system components (tank, tubing, hoses, clamps, etc.) securely fastened to the vehicle with fasteners designed for that purpose, and fastened to assure that the fuel system shall be leakproof and fastened so as not to interfere with the vehicle operation.
2. Fuel lines shall be positioned so as not to be in contact with high temperature surfaces or moving components.

General Authority: NDCC 39-02-03

Law Implemented: NDCC 39-02-03

52-04-03-06. Steering and suspension.

1. A special motor vehicle shall have no parts extending below the wheel rims in their lowest position, excepting tires and electric grounding devices designed for the purpose.
2. The steering system shall remain unobstructed when turned from lock to lock.

3. The steering wheel shall have not less than two turns nor more than six turns when turning the road wheels from lock to lock.
4. While the vehicle is in a sharp turn at a speed between five and fifteen miles [8.05 and 24.14 kilometers] per hour, release of the steering wheel shall result in a distinct tendency for the vehicle to increase its turning radius.
5. No special motor vehicle shall be constructed or loaded so that the weight on the wheels of any axle is less than thirty percent of the gross weight of the vehicle.
6. Special vehicles shall be equipped with a damping device at each wheel location providing a minimum relative motion between the unsprung axle and wheel and the chassis body of plus and minus two inches [5.08 centimeters]. When each corner of the vehicle is depressed and released the damping device shall stop vertical body motion within two inches [5.08 centimeters].

General Authority: NDCC 39-02-03

Law Implemented: NDCC 39-02-03

52-04-03-07. Tires. The front tires on special motor vehicles must measure a minimum of sixty percent of the tread width of the rear tires.

General Authority: NDCC 39-02-03

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